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**NAVAL WAR COLLEGE  
Newport, R.I.**

**Protection, Risk and Communication:  
Battling the Effects of Improvised Explosive Devices in Contemporary Operations**

**by**

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**A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.**

**The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.**

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**03 May 2010**

## Contents

Abstract	iii
Introduction	1
Background	2
Discussion	6
Lessons Learned	16
Conclusions	17
Notes	18
Selected Bibliography	20

## **Abstract**

The meteoric rise of the use of improvised explosive devices (IEDs) by insurgents in Iraq presents a glimpse into one of the greatest potential challenges faced by the Joint Force- both now and in future conflicts. These devices are tactical weapons, but are deliberately used to achieve effects at all levels of warfare. Inroads have been made to mitigate the impact of these systems at the tactical and operational level by physically protecting the force, but this approach is often in direct conflict with the requirements of a counter-insurgency campaign. Further, the American experience in Iraq demonstrates that, in spite of extensive mitigation efforts, the enemy can garner significant strategic impact from the employment of IEDs. The enemy has accurately recognized the will of the nation- both the general public and their elected representatives- as the American strategic center of gravity in contemporary overseas contingency operations. Underpinning this source of strength is the critical requirement of popular support. In the information age, this requirement is vulnerable to direct attack and may therefore be priority target for a militarily overmatched adversary.

The asymmetric nature of future conflict will require a comprehensive approach to the IED menace. Adaptation and technology can mitigate the threat at the tactical level, while a comprehensive counterinsurgency approach that balances the factors of time and force can avert IED effects at the operational level. However, the strategic problem remains. Joint Force commanders must design and prosecute an extensive strategic communication program, conversing directly with the American public and the broader global audience, to protect the friendly strategic center of gravity.

## INTRODUCTION

The conflict in Iraq has been characterized by the proliferative use of improvised explosive devices (IEDs). These relatively cheap and often crude bombs have become the current weapon of choice for an overmatched adversary seeking to challenge American combat power. Of the 3,471 American hostile deaths recorded in Operation Iraqi Freedom (OIF), 2,188 (63%) were the result of an explosive device detonation.<sup>1</sup> No conclusive numbers are available regarding the number of Iraqi civilian deaths caused by bombings and IEDs, but it is undoubtedly a significant portion of the 51,675 “martyred victims” reported by the Iraqi Ministry of Human Rights in 2009.<sup>2</sup> Though often depicted as ad hoc weapon systems, IEDs are much more. They can be used to strike opposing military forces or as instruments of terror against the civilian population. Coupled with the reach of modern information systems and public media, these devices transcend from local battlefield weapon systems into weapons of mass strategic effect.

At the tactical level, these devices are often used as obstacles and barriers, similar to the way that a conventional combatant would employ mines. At the operational level, the threat posed by IEDs tempts commanders to take extensive measures to protect the force, jeopardizing the access and interaction with the local population that is required to perform counterinsurgency operations. However, a successfully waged IED campaign, including the use of suicide bombing attacks, has its greatest effects at the strategic level. The images of military and civilian casualties, physical destruction and apparent chaos can serve to erode popular support for the war. The media’s projection of these images in near real-time across the globe is precisely the outcome that the insurgents may be seeking. This is an indirect attack on the friendly strategic center of gravity, and threatens the successful prosecution of the mission.

Tactical and operational efforts to mitigate the effects of IEDs have been largely successful, however, the strategic problem of fighting a lengthy and costly campaign amidst failing public and political support remains. In the future, Joint Force commanders will be required to balance protecting troops with the requirements of asymmetric warfare while executing a strategic communications offensive to counter enemy attempts to degrade the nation's will to fight.

## **BACKGROUND**

As long as the United States maintains its significant margin of superiority in conventional military capabilities, future contingency operations will likely continue to place the Joint Force in confrontation with militarily inferior adversaries. If the Iraq experience is used as an indicator of future trends, these adversaries will remain highly adaptive and capable of applying the limited means available to them to successfully attack U.S. forces and strategic civilian targets.

After the fall of Baghdad, coalition forces were presented with an expansive security and governance vacuum.<sup>3</sup> The dismantling of the Iraqi armed forces and the de-Bathification program served to empty the country of much of the apparatus that had maintained control under the regime of Saddam Hussein. Coalition forces, constrained by limited manpower and working with vague operational guidance, tended to focus less on maintaining security and more on self-sustainment and protection. As senior leaders and national level policy makers struggled to define the way forward in a rapidly deteriorating security situation, significant portions of available coalition combat power were dedicated to establishing a network of secure operating bases, connected by ground and air lines of communication and largely separated from the day-to-day life of Iraqis.

Simultaneously, a fledgling insurgency developed. Fighters with a wide variety of backgrounds, representing a broad range of interests seized on opportunities presented by the security vacuum. Regardless of their motives, insurgent groups and criminal networks seemed to understand that discrediting U.S. forces and driving them from the country would open up even greater opportunities to seize political power within Iraq or expand their criminal enterprise. Meanwhile, foreign fighters, often representing hard-line Islamist interests, began pouring into the country.<sup>4</sup> Anxious for an opportunity to fight the U.S., they knew that driving the U.S. led coalition from a messy and chaotic Iraq would discredit American legitimacy throughout the world. It is in this context that IEDs first made their appearance as the ideal weapon system to meet these ends. They could be used to attack a variety of targets, both civilian and military, were easy to construct and deploy, and could be employed anonymously with standoff from coalition firepower.<sup>5</sup>

The modern IED is a weapon system created from largely non-military components. Though often incorporating military stores, such as explosive charges or detonators, the devices themselves are largely improvised from commercially available components. Designed to destroy, incapacitate, harass or distract adversary forces, the devices often include explosive, pyrotechnic, incendiary or noxious warheads.<sup>6</sup> In post-Saddam Iraq, there was no shortage of available materials for building IEDs. The regime's vast stockpiles of munitions were scattered in dumps and depots throughout the country; these locations were left largely unsecured by coalition forces in the days following the invasion.<sup>7</sup>

Within three years, IED use was prevalent throughout Iraq and rapidly becoming the dominant means of attacking coalition forces. In the first year of the conflict, from March 2003 through February 2004, there were a recorded 96 U.S. military deaths related to IED attacks. In

the same annual period in 2004-2005, that number was 214. From March 2005 to February 2006 that number jumped to 414. This represents 33.1% of all ground hostile deaths in the first year of the conflict, 28.1% in the second and, notably, 62.8% the third year. In the same annual period of 2006-2007, this number climbed to 426, or 57.4% of all recorded ground hostile deaths.<sup>8</sup> This trend demonstrates the insurgents' ability to rapidly adapt, as they transitioned away from riskier means of attack, such as direct fire and force-on-force engagements, employing IEDs singularly with tactical standoff, or in combination with complex ambushes.

The coalition reaction to the IED threat from 2004-2006 actually magnified its influence. Forces responded to the threat of being bombed while out on patrol by increasing protective armor on vehicles and personnel, establishing a few primary patrol and logistics routes, and operating from scores of large forward operating bases or "FOBs" where troops enjoyed layers of protection and many of the comforts of home. These actions served to effectively isolate ground forces from the Iraqi people and leave significant portions of terrain open for the enemy to occupy. As demonstrated by the notorious incident involving a Marine patrol in Haditha in November 2005, in which multiple Iraqi civilians were killed by U.S. forces after coming under attack by an IED,<sup>9</sup> units were also susceptible to an emotional over-reaction to an IED event, often engaging or detaining innocent bystanders.

Units often would drive out from their FOBs in heavily armored vehicles, patrol or conduct operations in a specific area, and then drive back to the FOB, essentially commuting to combat. These actions, coupled with frequent over-reaction to insurgent attacks further distanced coalition forces from the Iraqi population, complicating any attempts to transition control of the deteriorating security situation to fledgling Iraqi forces.



This situation changed with the broad shift to a counterinsurgency approach in Iraq in 2007. In what has become known as “the surge,” forces began to push out into the urban centers and establish a lasting presence in partnership with Iraqi Security Forces while garnering cooperation and support from the citizenry. Coalition units returned to areas long controlled by elements of the insurgency, often encountering fierce resistance. Following of the oft-cited *clear, hold, build* construct<sup>10</sup>, coalition forces fought to gain control of the ground, and then remained there to establish security while coalition and Iraqi authorities slowly rebuilt the civilian governance, infrastructure and security apparatus.

This new approach carried with it a large degree of operational risk. Putting the transition to Iraqi authority on hold while pushing to improve the security situation was a viable course of action. However, the increasing casualty count and vivid images of disorder and violence transmitted to audiences throughout the world in near real-time by international media organizations would likely continue to erode public support for ongoing action, and possibly limit the amount of time available for the coalition to demonstrate tangible gains to a weary domestic audience. If public backlash against the war was great enough to force the coalition to withdraw from Iraq prior to establishing a reasonable measure of security and affecting a legitimate transition to Iraqi authorities, the entire mission might be regarded as a failure. A destabilized post-Saddam Iraq would be open to a variety of unfavorable outcomes including tribal and ethnic violence, civil war, or fracturing of the country within its borders. The establishment of international Islamist terrorists groups and the influence of neighboring countries such as Iran were also of great concern.

With the infusion of additional troops this new approach generated almost immediate impacts. In late 2007, the operational commander, GEN David Petraeus was called to testify

before congress. In highly anticipated testimony, he was successful at demonstrating the improvements in the security situation<sup>11</sup> and adroitly made the case for continued investment in the Iraq war effort while managing public expectations. This event showcased the first major breakthrough against the strategic effects of the insurgents' IED campaign. Strategic communication efforts by the operational level commander were effective in promoting the coalition's military progress and shoring-up support for the war. Effectively, GEN Petraeus' testimony countered the effects of the insurgent IED campaign and bought additional time for the coalition to stabilize the country and begin transition to Iraqi authority.

Had it taken even only a few more months for coalition forces to demonstrate effective gains against the insurgency, the cumulative effects of the casualties and chaotic images created by improvised explosive devices might have resulted in an American withdrawal and a significant strategic and geopolitical defeat for the United States.

## **DISCUSSION**

As the Iraq case demonstrates, an adversary may employ IEDs to achieve effects at all levels of war. At the tactical level, IEDs serve as obstacles and barriers to maneuver. Joint doctrine defines an obstacle as "any obstruction designed or employed to disrupt, fix, turn, or block the movement of an opposing force," while also posing potential increased losses in personnel, time, and equipment on the opposing force.<sup>12</sup> A barrier is nothing more than a coordinated series of obstacles<sup>13</sup> employed to achieve a specific effect on the opposing force.

By the late summer of 2003, enemy forces comprised largely of former Bathists and Saddam supporters began attacking the coalition with small arms, rocket propelled grenades and mortars. While obviously hazardous to forces on the ground, many units were able to largely overcome these tactics using traditional fire and maneuver.<sup>14</sup> Insurgents subsequently adapted,

and by the end of 2003 began using improvised explosive devices as a method of engaging the coalition.<sup>15</sup> The successful employment of IEDs as a means of attacking ground forces also created the effects traditionally associated with obstacles and barriers. Insurgents began to prevent the free movement of coalition forces into certain areas or along certain routes and canalizing forces into engagement areas for ambush attacks.

Blocking the Joint Force's access to stretches of urban terrain can make it possible for insurgents to develop strongholds, where they control both the terrain and the population. Deliberately planned belts of IEDs have the potential to restrict entry into some of these centers because they can raise the cost of defeating the obstacles to an unacceptable level. Without extensive combat engineering and explosive ordnance disposal (EOD) resources, the Joint Force would risk extensive casualties and destruction of equipment in breaching operations. Eventually, in Iraq, some enclaves, such as Sadr City in Baghdad were left virtually unpatrolled, as they had essentially become restrictive terrain for the coalition.

Employment of IEDs along ground lines of communication (LOCs) can effectively disrupt operations. In Iraq, long supply lines originating in Kuwait challenged coalition forces. As the insurgency grew, these LOCs were highly vulnerable, presenting lucrative "soft targets" for attack. The threat these devices posed to sustainment of forces in the field required the operational commander to dedicate significant combat power and intelligence, surveillance and reconnaissance (ISR) resources to protecting these vital LOCs. In addition to the logistical difficulties, the apportionment of forces along key LOCs limited tactical commanders' offensive options due to a reduced ability to mass combat power.

Commanders were successful at applying technology and adjusting tactics, techniques and procedures (TTPs) to mitigate many of these effects. Units trained, equipped and employed

counter-IED teams beginning in early 2004. Composed of combat engineers, explosive ordinance disposal experts and mounted security escorts, these teams, were designed to actively seek out IEDs and destroy them before they could be employed against maneuvering combat forces or logistics convoys. In an emerging mission that was coined “route clearance” or “area clearance” these teams were often successful at interdicting deployed IEDs before they could be initiated. But this approach was largely reactive, and only addresses a small fraction of the tactical IED threat. There were far too many IEDs and far too few counter-IED (C-IED) forces available to overcome the threat completely.

Another measure taken to address the problem at the tactical level was the application of technology. With the increase of casualties related to IEDs, commanders in the field began seeking vehicles that offered increased protection for their troops.<sup>16</sup> The introduction of Mine Resistant Ambush Protected (MRAP) vehicles gave troops a mobile combat platform that was largely resistant to the high-order detonation effects of most IEDs. Evidence supporting the increased survivability of forces operating from MRAPs is highly subjective, as it is impossible to measure the prevention of casualties. However, the higher ground clearance, v-shaped hull and heavy armor inherent in MRAP designs certainly offered an increase in ballistic protection above that of soft-skinned vehicles such as the high mobility multipurpose wheeled vehicle (HMMWV).

Another technological innovation was intended to prevent the detonation of the devices by jamming or denying the radio frequencies (RF) used to transmit signals between initiating systems and the devices themselves. The implementation of spectrum denial and jamming systems known collectively as CREW (counter radio-controlled electronic warfare), was intended to defeated many of the radio-controlled devices that were prevalent in the theater.

These CREW systems are mounted and man-portable radio emitters that either jam the signal between an IED operator and the device, preventing its initiation, or duplicate common radio frequency signals forward from the CREW platform, initiating the device prematurely. Here again, the effectiveness of these devices is difficult to measure. At a minimum, the advent of CREW systems forced insurgents to adjust their tactics away from radio-controlled devices.

By mid 2006, as nearly 1,000 IEDs were detonated each week, ground commanders began making significant efforts to counter the enemy networks that were required to build, deploy and employ IEDs.<sup>17</sup> Early on, these efforts were largely focused on finding and destroying caches of weapons material and a kinetic action against the IED “triggermen”. As the threat from IEDs increased, tactical commanders applied increasing resources and emphasis toward this effort. Intelligence and forensic analysis, surveillance and targeting of IED network members and programs offering rewards to citizens who would identify the location of IEDs or weapons caches all leveraged in an attempt to disrupt the enemy IED campaign.

The effectiveness of these efforts is difficult, if not impossible to measure. Regardless, tactical and technological countermeasures are inherently reactive and can only serve to mitigate the threat, not defeat it completely.

Though the technological and tactical adjustments made by the force served to lessen the IED threat and protect troops in the field, these measures alone did not prove decisive in the conflict. In fact, in some cases, they were arguably counter-productive to the operation as a whole. As troops further armored themselves to the IED threat, they also distanced themselves from the Iraqi population- the feature that would prove to be the key operational objective as the American effort transitioned to counterinsurgency.

The irregular nature of the Iraq conflict presented commanders with a variety of challenges, not the least of which was protecting the Joint Force. Milan Vego's definition of protection is most applicable in this analysis: "Operational protection refers to a series of actions and measures conducted in peacetime, crisis and war aimed at preserving the effectiveness and survivability of military and nonmilitary sources of power deployed [to] or located within the boundaries of a given theater." <sup>18</sup>

In the high intensity, force on force operations that characterized the first few weeks of the Iraq war, operational protection was achieved largely through the speed, mobility and firepower of the committed (largely armored) conventional forces.

But later, as American efforts at achieving general stability and security floundered, the question of how to appropriately protect the force was not given adequate consideration. As the security situation deteriorated and attacks on American forces became more frequent, a destructive cycle of events that characterized the operation for many years developed- just as Conrad Crane and Andrew Terrill warned in an independent report, prior to the initial invasion.

...any expansion of terrorism or guerrilla activity against U.S. troops in Iraq will undoubtedly require a forceful American response. Such U.S. actions could involve a dramatic escalation in the numbers of arrests, interrogations, and detentions of local Iraqis. While such actions do improve security and force protection, they seldom win friends among the local citizenry. Individuals alienated from the U.S. occupation could well have their hostility deepened and increased by these acts. Thus, a small number of terrorists could reasonably choose to attack U.S. forces in the hope that they can incite an action- reaction cycle that will enhance their cause and increase their numbers.<sup>19</sup>

This passage accurately describes the conundrum coalition forces faced during the occupation. Response measures taken by forces in the field often served to inflame the anger of

the population and increase support for the insurgency. While IEDs were only one of many factors contributing to this situation, their widespread use is testament to their effectiveness.

Commanders leading conventional forces in irregular or low-intensity conflicts should be prepared to face similar asymmetric threats. Training troops in force escalation measures (incremental increases in force based on the level of threat) is one approach. Balancing the types of forces committed to operations, between light, medium and heavy is important as well. This provides the commander with an appropriate level of protection in higher threat scenarios where he can use his armored forces to penetrate insurgent strongholds, while offering the expansive number of dismounted, light and specialized elements required to maintain a lasting presence. The approach was used with great success in Ramadi, the capital of Anbar Province, as U.S. forces used a broad mix of unit types to re-establish a presence in the city.

The first step under this new approach was to send Special Operations sniper teams to sneak into the building he wanted occupy. Then he would have a “route clearance” team work its way through the roadside bombs to the building, followed immediately by a company of Army troops or Marines to occupy the building. Upon arrival they would begin building a new combat outpost.<sup>20</sup>

It was not until late 2006, as commanders came to realize that they were facing a widespread insurgency, that problem was addressed. With the transition to counterinsurgency in 2007, protection measures were widely discarded in an effort to reach out to the Iraqi people. Initially, the reduction in protection posture would result in an increase in risk, but gaining the trust and cooperation of the population was essential in defeating the insurgency.

Here though, a new conundrum arises. The additional risk inherent with a counterinsurgency approach would likely lead to an increase in casualties, as insurgent forces deployed IEDs to attack the exposed coalition troops. This presented the strategic problem of

maintaining domestic support for the war long enough to allow the new approach to demonstrate positive results.

Insurgents use two methods to employ IEDs to achieve strategic effects. Targeting of coalition forces serves to inflict casualties and raise the cost of the conflict, eroding public and political support back home. Targeting of civilians serves to inject chaos and prompt sectarian retaliation, which serves to discredit the coalition efforts at establishing security and maintaining order. Both of these lines of effort are reliant on global information flow and media stories that depict the scenes, stories and images that the insurgents desire to portray.

American public and political tolerance for casualties is difficult to measure, but worth noting is the drastic reduction in U.S. casualty rates in recent conflicts (see Table 1). In spite of these lower losses, anecdotal experience seems to indicate lower levels of domestic support in the current strategic environment.

Conflict	Participants	Killed in Action	Percentage
Civil War	2,213,363	364,511	16.4
World War I	4,734,991	116,516	2.5
World War II	16,112,566	405,399	2.5
Vietnam	8,744,000	58,220	.67
Iraq/Afghanistan	1,400,000 <sup>21</sup>	4382 <sup>22</sup>	.31

Table 1. American Casualty Rates in Major Conflicts<sup>23</sup>

Tenuous public support in modern conflict is likely the result of many factors, including media exposure of violent images, slipping economic strength, a more pluralistic, globalized society and the duration of a given conflict. Operational commanders should recognize an adversary's ability to inflict casualties as potentially critical vulnerability for U.S. operations.



The targeting of civilians through the use of IEDs is a riskier proposition for potential adversaries. In Iraq, the bombing of markets, mosques and population concentrations was used to incite chaos and disorder in key areas under the U.S. occupation. In the short term, this had the strategic effect of portraying the security situation as deteriorating, and discrediting the effectiveness of coalition forces. Later though, insurgents ran the risk of alienating themselves and their cause from the general population, as people grew tired of the violence and turned against the insurgency.

A successful IED campaign may have its greatest effects at the strategic level. In Iraq, adversary forces have identified and attacked the American strategic center of gravity- national will to support the war effort, for over seven years. Whether this effort was the result of deliberate planning, opportunism or a combination of the two may only be decided by history. Regardless, a variety of hostile actors focused their efforts on destroying vulnerable coalition ground forces and inciting chaos and violence. Combined with the targeting of civilians, these efforts (amplified by extensive media coverage) were largely successful at eroding public support and discrediting the war effort. The contemporary operating environment, with a proliferation of small arms and explosive ordnance in failed or failing states will likely continue to present the means to use IEDs against the Joint Force. In an era where public opinion is extensively shaped by press coverage and shocking images, commanders should continue to expect the threat of IEDs to permeate future operations.

The ability to rapidly assess, adapt and communicate at strategic level is lacking across the Joint Force. It took the U.S. nearly four years after the fall of Baghdad to assess and accept the nature of the Iraq conflict; it was not until 2007 that the operational commander was able to successfully articulate the nature of the conflict to the domestic audience.

The fundamental source of the conflict in Iraq is competition among ethnic and sectarian communities for power and resources. This competition will take place, and its resolution is key to producing long-term stability in the new Iraq. The question is whether the competition takes place more – or less – violently.<sup>24</sup>

Once the nature of the conflict is understood, forces can adapt to the reality on the ground. In the Iraq case, this meant less hunting of former regime members and terrorists and more efforts focused at protecting the population. Future conflict may present similar scenarios.

Coupled with the requirement to assess and adapt, the operational commander must be capable of communicating with a variety of audiences. In addressing the domestic audience back home, he or she will be required to speak with authority on the subject, demonstrate tangible results and promote reasonable expectations for resolution of the conflict. This is a function traditionally conducted by elected or appointed political leaders, but as the Iraq case demonstrates, those leaders may lose their credibility and it may fall to the operational commander to represent the effort.

In his testimony before congress in September 2007, just six months into the “surge” and the transition to counterinsurgency, GEN Petraeus made what can be characterized as the first successful counter-attack against the insurgents’ efforts to defeat the American national will. In highly publicized and widely viewed testimony, GEN Petraeus outlined initial progress.

The military objectives of the surge are, in large measure, being met. In recent months, in the face of tough enemies and the brutal summer heat of Iraq, Coalition and Iraqi Security Forces have achieved progress in the security arena. Though the improvements have been uneven across Iraq, the overall number of security incidents in Iraq has declined in 8 of the past 12 weeks, with the numbers of incidents in the last two weeks at the lowest levels seen since June 2006.<sup>25</sup>

This testimony clearly demonstrated measurable improvements in the security situation. Whether or not this was the genesis of the increased support is debatable, but it certainly gave the public something tangible to consider.

Public support for the war effort improved dramatically in 2007. In a Pew Center poll, respondents indicating that they felt that the military effort was going “very well”, or “well” improved from 30% to 48% between February and November 2007, this is a 60 percent increase. Meanwhile the poll also indicated that 43% of respondents felt the effort to defeat insurgents was “making progress,” up from 30% in February.<sup>26</sup>

GEN Petraeus’ testimony before congress is an example of the operational commander seizing an opportunity to engage the American public and present a candid assessment of the conflict. Joint Force commanders can use this approach in the future as model of effective strategic communication.

Some might argue that the emphasis placed on IEDs as a significant factor in complex, irregular operations is overstated. They would state that the IED is simply an ad-hoc weapon system, chosen by the insurgency in Iraq simply because it works.

A unique aspect of the Iraqi insurgency is that numerous insurgent groups with conflicting goals have chosen to wage their insurgencies via an IED campaign. Due to the conflicting nature of many of these groups’ goals it is highly unlikely that they have chosen to use IEDs as part of an overarching strategic campaign. Do insurgent groups choose IEDs for strategic reasons or merely because they are the most feasible means to reliably attack coalition forces?<sup>27</sup>

This is a reasonable position, but it fails to credit adversary forces with the ability to determine and attack the American strategic center of gravity. A deliberate strategic effort on the part of the enemy will require more than just tactical and technological solutions.

The follow-on argument that Moulton eludes to is: the reason insurgents chose IEDs doesn't really matter, it's the effects that must be dealt with. This also has some degree of validity. But to dismiss the reason for the selection of IEDs as irrelevant narrows the scope of the problem too far. Insurgent groups select IEDs as their weapon of choice because of the system's disproportionate impact on the adversary at the tactical, operational and strategic level.

Congress has appropriated nearly \$19 billion to the Joint IED Defeat Organization (JIEDDO) already.<sup>28</sup> This is just one among many counter-IED programs. The billions invested in counter-IED technologies and the creation of entirely new defense organizations such as JIEDDO indicates the U.S. defense establishment's recognition that the IED is a strategic weapon that poses a unique and enduring threat to American operations and that the U.S. should expect to face similar threats in future conflicts across the range of military operations.

### **LESSON LEARNED**

Tactical and technological adaptation to emerging threats remains a distinct strength of the U.S. military. Future operations, regardless of the nature of the conflict, will require forces to maintain this ability. Given the potential for reduction in resources due to economic and political constraints, this will remain a challenge for the Joint Force, but as the Iraq case demonstrates, one it is capable of meeting.

Operational level commanders will have to deal with asymmetric adversaries in the future. These adversaries will challenge American combat power and legitimacy through whatever means are available or most effective. In the Iraq case, the IED served that purpose. The Joint Force commander and staff must be capable of balancing the desire to protect the force from casualties with the realities of the conflict. The ability to assess and assume short-term risk

is a trait that the defense establishment should seek in its future leaders. This is a trait that can only be developed through extensive experience coupled with education and training.

Most important however, may be the requirement for operational level commanders to engage adversaries at the strategic level. It is safe to assume that potential adversaries understand that American domestic opinions will shape the outcome of future conflicts. Using IEDs to inflict casualties and create chaos serves to seize the strategic initiative and potentially erode support. American commanders must anticipate these types of attacks and develop an effective strategic communications program, capitalizing on a variety of engagement opportunities, that demonstrates progress while managing expectations. This can have potentially decisive effects in a complex, asymmetric conflict.

## **CONCLUSIONS**

So much more than just “roadside bombs,” improvised explosive devices have become the signature enemy weapon system in the Iraq war narrative. Insurgents have used IEDs to great effect against the U.S.-led coalition: disrupting tactical operations, restricting freedom of action and inflicting considerable numbers of casualties. These effects culminated to present the most significant threat to the success of Operation Iraqi Freedom (OIF): the loss of domestic support.

U.S. forces can quickly adapt to overcome (or at least mitigate) the tactical effects of IEDs. Understanding the nature of the conflict and applying the right operational approach, in balance with an appropriately protected force, will help maintain freedom of action at the operational level. Strategically, commanders must seize on every opportunity to communicate with the domestic audience in a deliberate effort to maintain support for what are likely to be extensively challenging future operations.

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